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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/028,730
Filing Date: October 19, 2001
Appellant(s): COLLINS ET AL.

George Coury
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 17, 2007 appealing from the Office action mailed August 21, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

Claims 37 to 40 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

Claims 1, 2, 3, 17 and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by Gunn et al (US 5,820,352).

Claims 6, 7, 18, 19, 21 to 23, 26 to 28 and 30 to 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gunn et al (US 5,820,352) in view of Kauffman et al (US 5,209,076).

Claims 4, 5, 20, and 29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gunn et al (US 5,820,352) in view of Allison et al (US 5,772,403).

NEW GROUND(S) OF REJECTION

Claims 41-42 are rejected under 35 USC 112, first paragraph.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,209,076	KAUFFMAN et al	5-1993
5,772,403	ALLISON et al	6-1998
5,820,352	GUNN et al	10-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

Claims 37 to 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. These claims recite a “system control box”. The specification fails to clearly describe the function of this system control box. The specification merely states that “commands issued by processor 14 can be enacted on the compressor” (page 6, para. 1). However, it is not at all clear in what manner the commands are enacted and/or

processed. This would impose an undue burden on one of ordinary skill in the art to make and use the invention.

Claim Rejections - 35 USC § 102

Claims 1, 2, 3, 17 and 24, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Gunn et al (US 5,820,352). Gunn et al disclose an apparatus for monitoring a compressor 12 (fig.2) comprising a plurality of sensor inputs (temperature sensors 44, 46, 48 and 49, pressure sensors 50 and 52, speed sensor 54) for indicating operating parameters of the compressor; at least one control action output for sending a control action to the compressor via control loop 90; and a control member 42 communicating the plurality of sensor inputs and the control action output as indicated in the block diagram in figure. 2, the control member being adapted to analyze inputs from the plurality of sensor inputs to determine a control action via control loop 92 and speed control routing 300 (fig. 8) and discharge pressure control routing 200 (fig. 9), wherein the control action 400 (fig. 10) includes actions for immediate protection (shut down routine 404) and alert routine 414 while the compressor is continued to be operated (col. 4, line 50 to col. 7, line 34), and adjusting commands for prime mover speed control with a conventional PID algorithm in step 306 (col. 9, lines 1 to 49, fig. 8) and discharge pressure control with a valve control in step 200 (col. 9, line 50 to col. 11, line 34, fig. 9A). The display panel alarm indicator 80 is readable as “indicating that maintenance is needed”.

Applicant argues that the "independent claims of the present invention are drawn to a system and apparatus wherein the desired protection is incorporated into a module. However, it is noted that most of the claims, including claim 1, do not recite a "module". Attention is furthermore directed to col. 4, lines 66 and 67, of Gunn et al which state that "The compressor control system includes an electronic control module or "ECM". See also col. 6, ll. 66 and 67.

Claim Rejections - 35 USC § 103

Claims 6, 7, 18, 19, 21 to 23, 26 to 28 and 30 to 32, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunn et al in view of Kauffman et al (US 5,209,076). Gunn et al disclose the invention substantially as claimed. However, Gunn et al do not specifically disclose that the control member is at a remote location and communicates with a communication member and a display member. Kauffman et al disclose an apparatus for monitoring a compressor (col. 1, line 57 to col. 2, line 58) comprising a plurality of inputs, compressor suction temperature 40, pressure 42, compressor discharge temperature 48 and pressure 46, oil pressure 44, monitor control device 38 (detailed in fig. 2), electrical control panel 52, control output to printer 56 and to compressor as indicated in fig. 1; control device 38 with microprocessor 60 communicating with sensors 40, 42, 44, 46 and 48 through analog to digital converter 90, keyboard manual inputs, real time clock interface 76, alarm interface 92, memory interface 80 and reset interface 102; display module 64 for a remote computer screen (col. 5, lines 29 to 34; analyzing and comparing inputs for control actions (col. 5, line 3

to col. 6, line 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for a microprocessor-based control process to advantageously have a microprocessor equipped with predetermined operation parameters for controls, and located remotely in a clean environment so that it will not be contaminated, and the system further equipped with a display for operator's attention as taught by Kauffman et al.

Claims 4, 5, 20 and 29, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunn et al in view of Allison et al (US 5,772,403). Gunn et al disclose the invention substantially as claimed. However, Gunn et al do not specifically disclose the commands for indicating that maintenance is needed. Allison et al disclose that a control system, for monitoring operation of a pump including a microprocessor-based controller and a plurality of sensors, can accurately determine when the next scheduled maintenance should occur (col. 9, line 66 to col. 10, line 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for a microprocessor-based control process to advantageously record each type of fault signals in the computer memory for determining the next scheduled maintenance as taught by Allison et al.

(10) Response to Argument

Ground 1

Appellant argues that "the present disclosure, showing a control box connected with the processor and various inputs and outputs, would certainly enable a person

skilled in the art to make and use the invention including the system control box." (p. 13, ll. 3 to 6 from the bottom of brief). This is merely an unsubstantiated allegation. All control boxes have inputs and outputs. However, without knowing what is the function of the control box, that is, what is the relationship between the input signals and the output signals, it is not seen how one of ordinary skill in the art could make and use the invention. For example, what change in input signals or operating conditions would cause a change in operating speed or cause the power to be turned off? What function does the control box 40 perform which is not already performed by the control module 12?

Ground 2

On page 14, paragraph 3 of the brief, appellant describes the operation of the control system and then alleges that "Gunn et al. do not at all teach this subject matter, and therefore that Gunn et al. do not anticipate independent claims 1, 17 or 24." However, appellant fails to provide any facts to support the allegation that Gunn et al do not teach the claimed subject matter. As stated in the final rejection of August 21, 2006, Gunn et al disclose a control action to shut down the compressor (col. 12, bottom para.) and control action for prognostic protection, wherein a signal indicating that maintenance is needed is issued while the compressor is continued to be operated (col. 6, para. 4).

Regarding claim 24 which recites that the control system is incorporated into a control module, appellant argues that this "is a distinction from the art of record which is not disclosed or suggested by same" (page 14, bottom para. of brief). Attention is

directed to col. 4, bottom para. of Gunn et al which states that "The compressor control system includes an electronic control module or "ECM" referred to at 42 in FIG. 2".

Ground 3

Appellant does not argue the rejection of these claims separately, but apparently bases the allowability of these claims on the alleged allowability of the claims from which they depend.

Ground 4

Appellant argues that the Examiner indicated in the final rejection that Allison et al teach a system for determining when the next ***scheduled maintenance*** should occur, that the inputs in question include compressor discharge pressure, compressor discharge temperature, compressor suction pressure etc., and that one would not rely upon such input to determine the next "scheduled maintenance" for a device. The examiner used the expression "scheduled maintenance" in the same context as used by Allison et al. One definition of "scheduled" is "events to occur at or during a particular time or period." It is clear from the disclosure of Allison et al (see col. 9, bottom para.) that the time of maintenance is actually unscheduled since it is a function of variable input signals from sensors, as in appellants claim 4, and such time is therefore not an event to occur at or during a particular time or period.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section **(9)** above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

/Devon Kramer/

A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:

/KAREN M. YOUNG/

Director, Technology Center 3700

Conferees:

Marc Jimenez /MJ/

TQAS TC 3600

/Robin O. Evans/
Supervisory Patent Examiner, Art Unit 3753